

Appl. No. 10/726,392
Amdt. dated July 5, 2005
Amendment under 37 CFR 1.116 Expedited Procedure
Examining Group 2815

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Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A semiconductor device comprising:
a semiconductor base;
a first insulation film which is provided on said semiconductor base and is made of a silicon material;
a second insulation film which is provided on said first insulation film, is made of an organic material, and is thicker than said first insulation film;
a third insulation film which is provided on said second insulation film, is made of a silicon material, and is thinner than said second insulation film; ~~and~~
a metal layer which is grown on a seed layer which is provided ~~on~~ via said third insulation film, and forms a wiring layer with said seed layer, wherein a current flows between said wiring layer and an external terminal; and
wherein said wiring layer is formed, via a fourth insulation film which is provided between said third insulation film and the wiring layer, on a fifth insulation film which is provided on said fourth insulation film and formed so as to correspond to said wiring layer.
2. (Currently Amended) The semiconductor device according to claim 2 1, ~~further comprising~~
~~a wherein said fourth insulation film which is provided between said third insulation film and said wiring layer so as to covers~~ an entire surface of said third insulation film, and is made of an organic material.
3. (Currently Amended) The semiconductor device according to claim 2, ~~further comprising~~

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~~a wherein said fifth insulation film which is provided between said fourth insulation film and said wiring layer and is made of a silicon material.~~

4. (Original) The semiconductor device according to claim 3,
wherein said fifth insulation film has a top view shape same as that of said wiring layer.

5. (Currently Amended) The A semiconductor device according to claim 2,
comprising:

a semiconductor base;

a first insulation film which is provided on said semiconductor base and is made of a silicon material;

a second insulation film which is provided on said first insulation film, is made of an organic material, and is thicker than said first insulation film;

a third insulation film which is provided on said second insulation film, is made of a silicon material, and is thinner than said second insulation film;

wherein said a fourth insulation film which is provided on said third insulation film and is made of polybenzoxazole resin; and

a metal layer which is grown on a seed layer which is provided on said fourth insulation film, and forms a wiring layer with said seed layer, wherein a current flows between said wiring layer and an external terminal.

6. (Original) The semiconductor device according to claim 1,
wherein said wiring layer is made of metal.

7. (Original) The semiconductor device according to claim 6,
wherein said wiring layer constitutes a metal pad which is connected to said external terminal, and/or a metal wire through which the current flows via said metal pad.

8-13. (Canceled)

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14. (Currently Amended) A semiconductor device comprising:
a semiconductor base;
a first insulation film which is provided on said semiconductor base;
a second insulation film which is provided on said first insulation film and is thicker than said first insulation film;
a third insulation film which is provided on said second insulation film and is made of a material having a moisture resistance property; and
a metal layer which is grown on a seed layer which is provided on ~~on~~ via said third insulation film, and forms a wiring layer with said seed layer, wherein a current flows between said wiring layer and an external terminal,
wherein said wiring layer is formed, via a fourth insulation film which is provided between said third insulation film and the wiring layer, on a fifth insulation film which is provided on said fourth insulation film and formed so as to correspond to said wiring layer.

15. (Currently Amended) The semiconductor device according to claim 14, ~~further comprising~~
a wherein said fourth insulation film ~~which is provided between said third insulation film and said wiring layer so as to~~ covers an entire surface of said third insulation film in order to prevent said third insulation film from being damaged.

16. (Currently Amended) The semiconductor device according to claim 15, ~~further comprising~~
a wherein said fifth insulation film ~~which is provided between said fourth insulation film and said wiring layer to~~ functions as an adhesive layer for preventing separation of said wiring layer.

17. (Original) The semiconductor device according to claim 16,
wherein said fifth insulation film has a top view shape same as that of said wiring layer.

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18. (Original) The semiconductor device according to claim 15,
wherein said fourth insulation film functions as an adhesive layer for preventing
separation of said wiring layer.

19. (Currently Amended) ~~The A semiconductor device according to claim 18,~~
comprising:

a semiconductor base;

a first insulation film which is provided on said semiconductor base;

a second insulation film which is provided on said first insulation film and is
thicker than said first insulation film;

a third insulation film which is provide don said second insulation film and is
made of a material having a moisture resistant property;

wherein said a fourth insulation film which is provided on said third insulation
film and is made of polybenzoxazole resin; and

a metal layer which is grown on a seed layer which is provided on said fourth
insulation film, and forms a wiring layer with said seed layer, wherein a current flows between
said wiring layer and an external terminal.

20. (Original) The semiconductor device according to claim 14,
wherein said wiring layer is made of metal.

21. (Original) The semiconductor device according to claim 20,
wherein said wiring layer constitutes a metal pad which is connected to said
external terminal, and/or a metal wire through which the current flows via said metal pad.

22-28. (Canceled)

29. (Currently Amended) A semiconductor device comprising:
a semiconductor base;

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a first insulation film which is provided on said semiconductor base and is made of a silicon material;

a second insulation film which is provided on said first insulation film, is made of an organic material, and is thicker than said first insulation film;

a third insulation film which is provided on said second insulation film, is made of an adhesive silicon material, and is thinner than said second insulation film; and

a wiring layer which is provided ~~on~~ via said third insulation film;

a fourth insulation film being provided between said third insulating film and said wiring layer, said wiring layer being prevented from separation over an entire region of the semiconductor device by an appropriate adhesion of said third a fifth insulation film which is sandwiched between said wiring layer and said second insulation film provided on said fourth insulation film and formed so as to correspond to said wiring layer, and wherein a current flows between said wiring layer and an external terminal.

30. (Currently Amended) A semiconductor device comprising:

a semiconductor base;

a first insulation film which is provided on said semiconductor base and is made of a silicon material;

a second insulation film which is provided on said first insulation film, is made of an organic material, and is thicker than said first insulation film;

a third insulation film which is provided on said second insulation film, is made of silicon material, and is thinner than said second insulation film; and

a metal layer which is patterned to form a wiring layer ~~on~~ via said third insulation film, wherein a current flows between said wiring layers and an external terminal,

a fourth insulation film being provided between said third insulation film and said wiring layer, and said wiring layer having sufficient remaining thickness left by is formed on a fifth insulation film which is provided on said fourth insulation film and formed together with the patterning of said metal layer for covering substantially an entire surface of said second

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~~insulation film, containing the surface corresponding to the areas on which aid writing layer is~~
~~provided so as to correspond to said wiring layer.~~